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CHILDREN'S HEALTH PERCEPTIONS

by

AMY FORREST

A Thesis

Submitted in Partial Fulfillment of the Requirements
for the Degree of Master of Science in Nursing
in the Division of Nursing
Mississippi University for Women

COLUMBUS, MISSISSIPPI

August 1999

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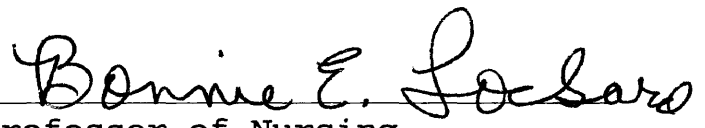
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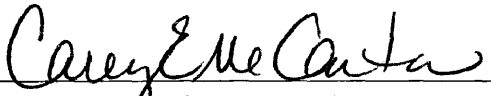
Children'S Health Perceptions

by

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Abstract

Little empirical knowledge exists regarding children's perceptions of health. The purpose of this quantitative descriptive study was to determine the health perceptions of children with a convenience sample of fourth-grade students at a small elementary school in Northeast Mississippi. The theoretical framework utilized was Bandura's Social Learning Theory. The directional hypothesis in the proposed study was school-age children have a positive perception of health. The Children's Health Rating Scale was utilized as a measurement tool that ranked 17 health-related questions on a scale of 1 to 5 (1 = most negative, 5 = most positive). A high cumulative score indicated a positive perception of health, and a low cumulative score indicated a negative perception of health. The researcher collected data during regular school hours at a time agreed upon by the teachers and the researcher. These data collected were analyzed using descriptive statistics. Participants in the study indicated a positive health perception overall as

evidenced by greater than 60% of the participants had a score of 61 or greater. Additional findings indicated some items on the questionnaire were ranked more positively or more negatively than the majority of the 17 items.

Questions requiring abstract concepts about the individual participant's future health presented a significant number of "Don't know" responses. Gender also presented statistical variances in positive and negative responses. A conclusion from the study was that the sample group had a positive perception of health. Further research is necessary to strengthen the findings of this study and determine children's health perceptions in order to provide appropriate education regarding health for this age group.

Dedication

This research endeavor is dedicated to
my husband, Bud,
and my three children,
Savannah, Bennett, and Charlie

I can never thank you enough for the sacrifices
you have made and the support you have given me.
This research is as much yours as it is mine.
Your pride in me makes every sacrifice
worthwhile. This is to the greatest cheering
section one could ever hope to have.

Acknowledgments

I would like to express my gratitude to Dr. Lynn Chilton, my advisor and committee chair, for her guidance, patience, and encouragement throughout this research endeavor.

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A special thank you goes to my parents who have encouraged and believed in me over these many years of continued education.

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Chapter I

The Research Problem

Children have been identified in Healthy People 2010 (U. S. Department of Health and Human Services, 1998) as primary targets for disease prevention and health promotion efforts. Media, family, peers, and environment influence health practices among school-age children. The media inundates school-age children with images of "health." Peers add to this by influencing health behaviors. Depending on the child's developmental stage, he or she processes all of this information differently. Between the ages of 8 and 9 years, children become very aware of cause and effect, thus this age is an optimal time to begin teaching positive health practices. Children are able to conceptualize the effects health practices today will have on their health status in the future (Thomas, 1985). Prior to developing educational interventions, health care providers must understand the school-age child's perceptions of health (Farrand & Cox, 1993).

Perception is defined as "awareness of one's environment through physical sensation" or "ability to understand" (Merriam-Webster's Dictionary, 1994, p. 542). Children perceive health as a feeling of wellness and being able to participate in play, school activities, and family activities uninhibited by pain, illness, or disability. Perception of health has historically been geared toward adults (Hester, 1987b). Little is known about a child's perception of health. The purpose of this study was to ascertain the health perceptions of school-age children in order to assist health care providers in delivering care and education to children in an age-appropriate fashion.

Establishment of the Problem

Most children perceive themselves as healthy and perceive health from a multidimensional perspective (Hester, 1987a; Singleton, Achterberg, & Shannon, 1992). School-age children view health holistically (Hester, 1987b). They acknowledge the importance of physical activity, social activities, dental care and proper nutrition (Hester, 1984). Food and nutrition seem to be a primary focus of children with regard to health. This point is most likely due to the considerable amount of

information children receive about nutrition through school, media, and family. Exercise is perceived as beneficial by most school-age children (Ferguson, Yesalis, Pomrehn, & Kirkpatrick, 1989). However, the intent to exercise is directly associated with self-esteem, because children with higher self-esteem are much more inclined to commit to an exercise program. Children have the ability to possess abstract concepts, for example, food as being energy and health as being strong (Singleton et al., 1992). This ability suggests that health education and intervention should begin in childhood.

Children do not view health as the opposite of illness (Hester, 1987b). The classic definition of health, the absence of disease, does not apply to children. Many factors define health to a child. These may be food and nutrition, physical activity, self-esteem, personal hygiene, or even acceptance by peers and family. To understand the school-age child's perception of health is germane to the development of interventions that will impact healthy lifestyles into adulthood. Antwerp and Spaniolo (1991), Hester (1987a), and Maylath (1990) have established measurement tools and have laid the groundwork for defining children's perception of health.

Groups of children other than those who are healthy have been studied to determine health perceptions. Chronically ill children also perceive themselves as healthy. For chronically ill children, health is not physical. Rather, it is acceptance and self-esteem. This factor would lend support to the idea that children view health abstractly. Farrand and Cox (1993) found that self-esteem directly affects health perception and children with positive self-esteem are better able to cope with threatening situations and feel less vulnerable. However, research regarding chronically ill children's perception of health has been minimal.

Considerable ambiguity exists regarding children's perception of health. Most research conducted has been disease specific. Little documentation has been found regarding the definition of children's perceptions of health, especially among healthy children.

It is important for health care providers to understand children's health perceptions because the foundations for healthy lifestyles are established during the early years of life. Many adult health practices are decided upon during childhood (Hester, 1987a). Adults have long recognized that childhood is the most impressionable

time in an individual's life. Furthermore, if these perceptions are not determined, then health care providers and educators may be missing an important opportunity to impact children's health into adulthood.

One way children learn a new behavior is through modeling (Thomas, 1985). The health care professional has the responsibility of adapting current knowledge about healthy lifestyle choices to reach the child's mind. If health professionals can determine children's health perceptions, then adults can be appropriate models to shape new health behaviors (Hester, 1987b).

Information regarding children's health has been biased due to reporting by parents and not the child. During the past decade, the focus has shifted (Maylath, 1990). More emphasis has been placed on the child's perspective. Today's technology and the ability to effectively distribute information provide adults with an excellent opportunity to reach children in very creative ways. Understanding the health perceptions of healthy children may provide health care providers with the building blocks for enhancing a child's health today and in the future.

Theoretical Framework

The theoretical framework for this study was Bandura's Social Learning Theory (Thomas, 1985), as this theory attempts to explain the way children develop their perception of the world. Bandura focuses on four areas to explain personality development: (a) the way a child acquires a new behavior he or she has never attempted, (b) the process of learning behaviors from modeling, (c) the role consequences play in repeated actions, and (d) the development of complex behaviors.

Learning would be hazardous and laborious if individuals depended on their own actions to tell them what to do. Therefore, Bandura proposes that children learn new behaviors they have never done before by modeling. This is observational learning. Within this theoretical framework new behaviors are not spontaneous but are reproduced from what children have learned. If the first attempt at the new behavior is not perfect, the child will refine the behavior until a positive response is obtained (Bandura, 1986).

The process of learning from models is not completely understood. Bandura hypothesizes that the child learns by observing someone else perform a behavior. The child then

processes what is seen and decides if the behavior will benefit or hinder him or her in the future. Errors lie not in the behavior that is seen but in how it is processed and stored by the child (Thomas, 1985).

Bandura's Social Learning Theory differs from traditional theorists in that there may be no direct reinforcement at the time of the behavior. Reinforcement-oriented theorists feel there must be reinforcement to equal every new behavior. Bandura states that individuals are capable of a storage system to recall information at a later date, and this recall acts as the reinforcement. Through modeling, children will develop either positive or negative health perceptions (Bandura, 1986).

Assumptions

The assumptions surrounding this study were as follows:

1. Children have perceptions concerning health.
2. Children's perception of health impacts lifestyle choices.
3. Modeling influences children's perception of health.

Purpose of the Study

The purpose of this study was to ascertain the health perceptions of school-age children in order to assist health care providers in delivering care and education to children in an age-appropriate fashion. Children have varying perceptions of health that can impact lifestyle choices. Children are teachable; therefore, it is in the health care provider's best interest to ascertain the health perceptions of a child in order to build a knowledge base for teaching and caring for children.

Research Hypothesis

One research hypothesis was generated for this study. This study proposed the following hypothesis: Children have positive health perceptions.

Definition of Terms

To better explain the problem statement for this study, the following definitions are given:

1. Children: Theoretical: persons between 6 and 18 years of age who attend or participate in a structured educational curriculum that meets state or local educational requirements. Operational: a young, school-aged individual currently enrolled in the fourth grade at

a selected public elementary school in rural Northeast Mississippi.

Positive health perceptions: Theoretical: an individual's affirmative view or interpretation of his or her physical, mental, and emotional well-being.

Operational: school-age children's individual interpretation of their physical, mental, and emotional well-being as determined by the Children's Health Rating Scale. A score of 61 or higher by 60% of the subjects indicated overall positive health perceptions of the fourth-grade students for the purpose of this study.

Implications for Nursing

Determining the health perceptions of children would greatly impact the effect of health education by healthcare professionals. Bandura's Social Learning Theory offers insight into how behaviors are learned by this age group. Nurse practitioners and even nursing students should understand these concepts to become successful in providing care and education for children.

The findings of this study could assist the nurse practitioner in the approach to practice when dealing with young children. Through understanding the perceptions of health currently held by children, the nurse practitioner

could adapt care and education to ensure lifelong positive health practices. The nurse practitioner and nursing student might also strengthen these assumptions and findings of research through further research in this area. Children are complex entities with much more sophisticated means of learning than once thought. Any information obtained regarding children's health perceptions will add to the existing body of knowledge to care for children and help all levels of health care make a positive impact on children's health and health practices.

Chapter II

Review of the Literature

Health perceptions of school-age children have been examined in several studies. In a review of the literature, children were found to equate health with exercise, nutrition, and wellness. Emphasis has been placed on exercise and the benefit of exercise to good health. Adults have certainly heard the message. However, healthy, school-aged children's knowledge and recognition of general health perceptions and the impact on health need further exploration.

Harrell, Gansky, Bradley, and McMurray (1997) examined the leisure-time activities of elementary school age children in regard to the intensities of particular activities, gender, race, and socioeconomic status. Cardiovascular risk factors also were examined in association with the intensity level of the activities. The cardiovascular risk factors included serum cholesterol levels, high blood pressure, and obesity. The research questions posed were twofold: Is there a relationship

between school-age children's leisure-time activities and cardiovascular risk factors, and is there a difference in the intensity of leisure-time activities between boys and girls and between whites and nonwhites of varying socioeconomic status? The researchers hypothesized that children are not highly active, and this increased cardiovascular risk factors as adults.

Variables identified in the study included leisure-time activities, physiological variables (blood pressure, total serum cholesterol, and obesity), and demographic variables. Activity levels were the central variables of the study. The researchers defined activity levels as any activity a child performed other than personal care aspects of daily life. Each individual activity was assigned a numeric value.

Harrell et al. (1997) employed a descriptive design. The sample (N = 2,200) included participants from 18 elementary schools in North Carolina between the ages of 7 and 12 years. Half were from a rural setting and half were from an urban setting. Gender representation was equal, and the racial distribution was equivalent to that of the State of North Carolina. The children had to be free of chronic illness and learning disabilities.

Instrumentation included questionnaires about daily activities, ranging from sedentary to very vigorous, which the children reported three times per week. These activities were assigned a metabolic equivalent. Blood pressure was obtained, serum cholesterol levels were measured, and obesity was determined using a body mass index scale. Demographic information was obtained from the parents of the subjects.

Data were analyzed using descriptive statistics. Each activity was evaluated according to race, gender, socioeconomic status, and environment. The children's activities were averaged and categorized as high, moderate, low, and very low. These activity categories were then compared to the demographic variables and physiological variables.

Harrell et al. (1997) determined that the three top activities reported by girls and boys combined were homework (31%), bicycling (31%), and watching television (29%). These also were the top three activities reported by girls. The top three activities reported by boys were video games, football, and bicycling. Of the top three activities reported by girls, 38% were of very low intensity. However, for boys, only 28% were reported as

very low intensity. There was no significant difference in activities reported based on race or socioeconomic status. Overall, boys performed higher intensity activities than girls after adjusting for race and geographic location.

Harrell et al. (1997) concluded that the highest intensity activities were significantly associated with obesity. More non-obese boys and girls reported one of the top three vigorous activities than obese boys and girls. Overall, the subjects were fairly inactive, but low percentages were obese. The researchers indicated a need for more research regarding the activities of children. Also, more studies are needed to determine the relationship between these activities and blood pressure, cholesterol, and obesity.

This study lent support to the existing study by adding to the knowledge base regarding school-age children's positive health practices such as exercise. The study did not duplicate the existing study but provided support to the need for further research in this area.

In another study, researchers examined exercise and several other variables that might have influenced children's health perceptions. Farrand and Cox (1993) examined the contributions of several variables on the

health behaviors of preadolescent children. These variables included sociodemographic factors, health experiences, self-esteem, intrinsic motivation, and family functioning. These variables were defined as modifiable and non-modifiable factors and were examined to determine the health perceptions and behaviors of preadolescent children. The study included a convenience sample of fourth-grade students in two separate school districts in central Illinois. A sample of 260 fourth-grade children and their mothers was obtained by clustering the classrooms according to districts and then taking a random sample of students from each cluster.

Farrand and Cox (1993) employed a questionnaire of family characteristics, which included information regarding parent education, income, marital status, as well as the student's age and gender. An open-ended questionnaire was completed by the students regarding family structure data during an interview by the investigator. The mothers were asked to rank the health status of each family member.

Intrinsic motivation was assessed using the Health Self-Determination Index for children. This questionnaire addressed health goals rather than current health

behaviors. The researchers employed the Children's Health Self-Concept Scale to determine the child's cognitive level of health perceptions. Health behaviors of the child were measured using the "How Often Do You?" instrument. This instrument addressed current health behaviors. Data were collected by having the fourth graders complete the questionnaires in classrooms at school. Completion of the questionnaire was followed by a telephone interview or mailed survey for family demographic data to be completed by the mother.

Farrand and Cox (1993) found that girls comprised 54% of the students, and 78.8% of the families were comprised of married parents. The mean family size was 4.4 members with an income of \$30,000 to \$39,000. Parents were found to have a mean educational level of 13.4 years. The mothers reported overall health of the sample as excellent to good.

Analysis of variance (ANOVA) was used to analyze the child self-reporting measures by gender. Only one significant difference was found in reported health behavior scores. The boys' mean score was 112.1, and the girls' mean score was 119, $F(1, 177) = 17.099$, $p = .001$. Girls scored higher overall in positive health behaviors.

Due to this difference, separate models were analyzed according to gender.

Farrand and Cox (1993) found the Interactions Model of Client Health Behavior valuable for the explanation of health outcomes in children. Two elements were operationalized in the study and used to explain influences on health behaviors. The findings indicated that health behaviors in fourth-grade girls were influenced by a complex system of modifiable and non-modifiable factors. Parental education and gender of the subjects had a significant influence on intrinsic motivation, self-esteem, and health perceptions. Health perceptions were the single consistent variable affecting health behaviors.

Gender was a strong predictor of health behaviors throughout the study. Girls reported significantly different health habits than boys. Girls also reported more positive self-health concept than boys. This difference may have been influenced by boys' socialization patterns. Children from larger families reported higher self-esteem but were influenced more by extrinsic factors than those children of smaller families. Parental education influenced children of both genders.

In conclusion, Farrand and Cox (1993) found children's health behaviors were influenced by many factors from demographics and family variables to self-esteem, intrinsic motivation, and perceptions of health. These results suggested that when developing a health behavior plan for preadolescent children, health perception and family dynamics should be considered.

The current study did not analyze the impact of family dynamics on children's health perceptions. However, Farrand and Cox's study supports the current study by recognizing the relevance of determining children's health perceptions in order to develop and implement positive health interventions for the current study sample population.

Ferguson, Yesalis, Pomrehn, and Kirkpatrick (1989) recognized the need to determine motivating factors in children to participate in exercise programs. The researchers conducted a pilot study to determine if children's attitudes and beliefs about themselves were attributable to a current exercise intent or practice.

Ferguson et al. (1989) conducted a survey on 603 students in two rural Iowa communities in May of 1986. One community had a nationally recognized physical education

program, and the other community was used as the control group. The subjects answered 45 questions during classroom hours. Subjects included students in Grades 6-8 with 261 being female and 342 being male. Nearly all subjects were Caucasian. All of the students attending a physical education program completed the questionnaire on the day of class.

Current exercise participation was measured by a single question. The question asked how many times students participated in exercise outside of the school's physical education class. Other questions were related to whether the students participated in school sports or other sports. The questionnaire also asked the students if they intended to participate in an exercise program outside of school even if they did not at the time of the survey.

Knowledge about exercise and attitudes toward physical education were assessed by the questions developed specifically for this study. Self-esteem and commitment scales were also utilized. Pearson's product-moment correlation was used to determine bivariate relationships. Regression analysis assessed which variables were significant.

Results suggested that many students intended to exercise outside of class (mean of 2.0 on a 5-point scale with 1 = definitely yes). Most of the students said they did exercise outside of class (M = 3.1, with 1 = less than once per week and 4 = three or more times per week). Self-esteem results measured high at a mean of 2.4. Students' knowledge of exercise was high with a mean of 3.9 with 5 being most knowledgeable. However, knowledge failed to correlate significantly with either exercise intent or practice. All other variables correlated significantly and positively with current exercise behavior.

Ferguson et al. (1989) concluded that individuals wishing to support active lifestyles among children should target physical education classes. Variables associated with intent to exercise were potentially modifiable. If students had a positive attitude toward exercise, they were more likely to commit to an exercise program in the future. The results also suggested that attention should be paid to the positive benefits of exercise programs. The researchers also found that positive self-esteem influenced intent and current exercise behaviors.

Ferguson et al. (1989) suggested future studies of this nature using health locus of control and self-esteem

to determine how these relate to exercise behaviors. Early development or positive attitudes toward exercise may impact future intent and commitment to a regular exercise program. This study provided support to the current study because of the correlation observed between early intervention and positive health outcomes. Both studies were based on the premise that school-age children have a potential for knowledge regarding exercise and its benefit to better health.

Researchers also have examined how children perceive food and nutrition as influences on health. Singleton, Achterberg, and Shannon (1992) examined the health perceptions of children aged 4 to 7 years in a study which explored whether these children included food and eating behaviors in their health perceptions. The impact of a human-based nutrition education program on the health perceptions of young children also was evaluated.

A pretest/posttest experimental control design was used to test the hypothesis regarding education intervention having no effect on the health perceptions of participating children. The study included 60 healthy Caucasian children with a mean age of 5.1 years from middle- to upper-middle income socioeconomic groups. There

were no significant age or sex differences between the experimental and control group.

Fifteen-minute audiotaped interviews were employed in both study groups to elicit the children's health perceptions. The interviews were done in two phases, with the first phase consisting of six open-ended questions regarding the children's concept of health and the degree to which food related to these concepts. The second phase included a series of 11 forced-choice response questions about the same topic. Children assigned to the treatment group completed 4 weeks of education in a program called Hearthrob. The major focus of Hearthrob was to aid children in identifying the role nutrition plays in health. After the treatment group had completed 4 weeks of the Hearthrob intervention, both the control and treatment groups were given a posttest. Health perceptions were evaluated using a Q score that was tabulated according to the response to closed-ended questions. Also used were concept maps, which were two-dimensional schematics that depict the relationship between concepts. Six levels of concepts were determined and each assigned a score.

Singleton et al. (1992) found that on pretest, 78% of the children from both groups linked food and nutrition to

health. When posttest scores were evaluated, 95% of participants in both groups mentioned food and nutrition when referring to health. A similar increase was noted pretest and posttest, with food and nutrition as meaningful concepts; 73% of the sample compared with 82% of the sample at posttest. The most frequent response (82% of the children) to the question of what being healthy means was "eat the right foods." Furthermore, 33% of the children responded that they were not healthy if they did not eat the right foods. Other responses included "big and strong," "exercise," and "not being sick." Regarding ways to be healthier, 58% of the children said that eating the right foods and exercising were needed, while 22% felt exercise alone would achieve this goal. Specific fruits and vegetables were named as examples of the right kinds of food. Fat content was noted by very few on the pretest, though this improved to 14 children on the posttest. Interestingly, less than 5% of children mentioned body weight as a health concept.

Singleton et al. (1992) concluded that healthy middle-class children define health in a positive fashion. The authors' findings support earlier research by Natpoff (cited in Singleton et al., 1992), although twice as many

children mentioned the importance of food relative to health in Singleton et al.'s study. This may represent a general increase in nutrition awareness or may indicate a difference in study populations. While the researchers found that most children did indeed recognize the importance of food's relationship to health, few on the pretest mentioned the concept of "fat." Young children did seem able to grasp these concepts relative to food, eating habits, and health, thus emphasizing the need to not underestimate the ability of preschool children to understand health and nutrition curriculum.

Singleton et al. (1992) recommended that greater efforts be made to educate young children regarding food and nutrition and the impact these factors have on health. Further studies should be done to include a larger population with qualitative procedures rather than closed-ended questions to measure accurately the amount of knowledge already possessed by the participants. Also, future studies should include a sampling of children from all races, geographical backgrounds, and socioeconomic levels. While the Singleton et al. (1992) study focused on nutrition, the current study examined several aspects of health, one of which was nutrition.

Children's health perceptions have been analyzed by a few investigators for the purpose of fundamental understanding of how children perceive their own health and the health of those around them. Graham and Uphold (1992) described and compared health perceptions and behaviors of school-age children focusing on specific health behaviors rather than the determination of children's level of engaging in healthy lifestyles. The research question posed was how children between the ages of 6 and 12 years manage their own health care in relation to minor injuries and general health behaviors.

Variables identified were school-age children, health perceptions, and minor injuries. The central variable of the study, health perceptions, was defined as any response that the child made regarding health during the interview process. The interview was conducted using open-ended questions allowing for a large range of responses. The emphasis of the interview was on the treatment of minor injuries and general health.

Graham and Uphold (1992) employed a descriptive design. The sample consisted of 83 children between the ages of 6 and 12 years who resided in a small southern city and attended an after-school program. All ethnic and

socioeconomic groups were represented; however, 87% of the participants were white. The mean age of the children was 8.5 years, and gender representation was equal.

Instrumentation included 34 age-appropriate, open-ended questions presented to the children by trained interviewers. The children were asked to describe health behaviors for a variety of situations. Seven areas were explored through the use of the questionnaire: demographic characteristics, health status, lifestyle practices, nutrition, dental health, and care of minor injuries.

Data were analyzed using descriptive statistics. Each response was tabulated and simple percentages were determined. The averages were compared for gender in two categories, health behaviors and care of minor injuries.

The researchers determined that 90% of both boys and girls reported themselves as in good health. Ninety-five percent of the children reported no chronic illnesses for both genders. For health practices, 100% of both boys and girls reported participating in at least three different types of exercises daily. However, only 38% of the girls reported eating breakfast while 93% of the boys reported eating breakfast. Another difference was determined with

regard to dental care; 56% of girls visited the dentist twice a year compared with 77% of the boys.

The second area of study was the care of minor injuries. A total of 72% of all children participating reported correct care of minor cuts. However, only 31% of girls and 37% of boys knew how to care for bruises. About 50% of the children knew how to care for burns.

Graham and Uphold (1992) concluded that most children view themselves as healthy. Most children seemed to manage their self-care well in the areas of exercise and dental care; however, 39% of the children did not wear seat belts. Most children scored high with the care of minor cuts but fell short with regard to the care of bruises and burns. Nutrition was an area that needed improvement. There were no significant differences between boys and girls for any categories discussed. The researchers indicated a need for further research about children's health perceptions and behaviors and gender differences.

The Graham and Uphold (1992) study provided the foundation for the current research. This qualitative study laid the groundwork for the development of a quantitative instrument. The Graham and Uphold study and

the current study explored various aspects of children's health as defined by school-age children.

Hester (1984) examined the collection of children's health perceptions and concerns about health related actions. There was a need for the development of a measurement tool specifically for children. The Children's Health Self-Concept Scale was developed in response to this need.

Central to the development of this tool were four beliefs. First, individuals develop health self-concepts during childhood. The second was that unconsciously the individual's self-health concept influence their health behaviors. The third stated that the individual's knowledge of his or her self-health concept benefits the health care provider. The final belief was that an individual's self-concept is measurable.

A convenience sample of 225 school-aged children answered an open-ended questionnaire. The children ranged in age from 6 years to 12 years. The questionnaire consisted of two items and allowed for a maximum of 10 responses each. Two thousand eight hundred forty-four responses were obtained and content analyzed. The questionnaire responses resulted in 12 categories for

analysis. The items for the Children's Health Self-Concept Scale were placed in one of the 12 categories and structured in a bipolar format. Positive perceptions were one-pole, and negative perceptions were the opposite pole. Five items pertained to each subscale.

Content validity was subject to expert review from three separate expert panels. Empirical testing was performed on 22 children who ranged in age from 7 to 10 years and item line validity for each response was determined. This resulted in revisions and the final instrument consisted of 45 items with 12 subscales.

Hester (1984) then conducted a second pilot test with 367 children from age 7 to 12 years from two suburban school systems. The questionnaire was administered to the children by the researcher or school-nurse and took approximately 25 minutes to complete. The results of this pilot study resulted in further revisions of the Children's Health Self-Concept Scale and a third and final 41-item instrument was the outcome.

The final draft of the Children's Health Self-Concept Scale was conducted with a convenience sample of 940 children from 7 to 13 years of age in two rural mountain communities. Six hundred eighty-one children of the 940

provided internal consistent coefficients of reliability for the Children's Health Self-Concept Scale. Fifty-one percent of the subjects were female. Five factors derived from the study explained 72.8% of the total variance of the data set. Factor I, Psychosocial, accounted for 36.9% of the variance. Factor II, Physical Health, accounted for 11.6% of the variance. Factor III, Healthiness, accounted for 10.3%; and Factor IV, Values, accounted for 7.6% of the variance. Factor V, Energy, accounted for 6.4% of the variance. These factors became the subscales of the Children's Health Self-Concept Scale.

Construct validity was determined for this study, and data were analyzed by three methods. These methods found a lack of discriminant validity.

Hester (1984) concluded that overall the reliability of the Children's Health Self-Concept Scale was high. Construct validity was directed at the subscale and, therefore, the construct validity for the entire Children's Health Self-Concept Scale is still unknown. The investigators indicated that more research is needed on the Children's Health Self-Concept Scale before it may be used widespread in nursing. The scale might be used,

however, on children with known health problems in comparing responses with children without health problems.

This study was germane to the proposed research based on the fact that the Children's Health Self-Concept Scale was the basis for the measurement tool utilized in the existing study as well as the Hester study. Additionally, both studies surveyed school-aged children regarding health.

Hester further strengthened the Children's Health Self-Concept Scale by conducting two separate studies published in 1987. These studies further explored the concept children have regarding their health.

Hester (1987b) examined the health perceptions of school-age children from both healthy and unhealthy children. The sample ($N = 225$) was one of convenience and consisted of children from a large southwestern city. The subjects ranged in age from 6 through 13 years. The mean age was 8.65 years. Fifty-one percent of the sample were boys and 49% were girls. The school did not offer a standardized health curriculum.

The study used an open-ended questionnaire with two statements. The subjects were allowed to make 10 responses to each statement.

Hester (1987b) received a total of 2,844 responses. One thousand eighty-three responses pertained to healthy children, and 1,061 pertained to unhealthy children. The responses were then content analyzed with each response receiving a code number. The responses were then sorted by the researcher into 34 categories.

The 34 categories were then reevaluated. This led to the evolution of 21 categories and then to 17 categories. The categories represented a multidimensional perspective of health. The data received in the categories of Unique and Setting-Related categories were excluded from health perceptions statistics. The other categories included Activity-Exercise, Personal, Grooming, Physical Health, Nutrition, Behavior, Emotional Health, Sleep, Dental Health, Friends, Family, and Substance Use.

With the deletion of two categories, 2,404 responses were left. Fifty-two percent were determined to be healthy statements, and 47.7% were determined to be unhealthy statements. Hester (1987b) found that 77.4% of the responses fell into 5 categories. These were Activity-Exercise, Personal Grooming, Physical Health, Nutrition, and Behavior.

The researcher found that children perceive health from a multidimensional perspective. School-age children recognize the importance of nutritional, dental, physical, social, and emotional aspects of health. Hester found that school-age children perceive health in a holistic manner.

Hester (1987b) also found that children do not necessarily view health as the opposite of illness but related it instead to being unhealthy which was not a predominant theme. Healthiness was viewed as the lack or illness. Safety was a category that did not develop from the study. Most health professionals have discussed safety as an aspect of health, but Hester found these subjects did not perceive it as an aspect of health.

Hester (1987b) concluded that health professionals need to reevaluate how health assessments are conducted with children. Assessment should begin with how the child perceives health. This was the premise for the current study. Both studies recognized the relevance of the understanding of school-age children's health perceptions and the impact these perceptions have on the approach to health education by health care providers.

In a second study by Hester that same year, the information obtained from the first study was expounded

upon. Hester (1987a) conducted a second study dealing with health concerns of school-age children. The purpose of this study was to determine school-age children's perceptions about health and then delineated those perceptions into health concerns. The Child's Health Self-Concept scale was utilized as a measurement tool.

The researcher employed a sample of 461 school-age children, ages 7 through 12 years. Sample diversity consisted of 229 (49.7%) boys and 230 (49.9%) girls. Seven-year-olds made up 12.4% of the sample, and 12-year-olds comprised 4.9% of the sample.

Hester (1987a) found that, in general, children perceive themselves as healthy. The Child's Health Self-Concept Scale had a potential mean score range from 1 to 4 with 4 representing a positive perception of health. The mean score for the group was 3.19. The mean score for the girls was 3.17 and for the boys was 3.22. There was no significant difference among age groups.

The Child's Health Self-Concept Scale does not have actual subscales, but 10 categories were identified. Nutrition was one category addressed. Sixteen to 35% of the children felt they engaged in healthy nutritional behaviors. Questions ranged from junk food consumption to

how much milk the children drank per day. Another category looked at dental hygiene. Ninety-two percent of the children reported they keep their teeth clean, and 78% of the children had regular dental check ups. Family was yet another category with 90% reporting they have happy families. The category of Friends found that 72% of children felt they had a lot of friends. Thirty-four percent of the children reported feeling lonely in the Psychosocial category. The Physical Health category addressed specific physical complaints. The Exercise and Activity category found that more than half of the children reported they watched television instead of playing outside. Children reported sleep habits as well. Sixty-one percent reported going to bed early, and 71% said they had certain bedtimes. In the Personal Grooming category, it was found that 95% of children wore clean clothes every day. Finally, 91% of the children felt good about their health.

Hester (1987a) concluded that, while children perceived themselves as healthy, when individual categories are examined some areas of concerns stood out. The researcher concluded that each category found at least one area to be researched further. The researcher

suggested that further research is needed in the area of children's health perceptions.

The study strengthened the validity of the Children's Health Self-Concept Scale and provided support for the purpose of the existing study. Both studies utilized the Children's Health Concept Scale as a tool to measure children's perceptions of health.

The Children's Health Self-Concept Scale was modified in a study conducted by Maylath (1990) to assess children's perceptions of health. Historically, parents have been the voice of the child and have supplied the health care provider with information regarding the child's health. The purpose of this study was to evaluate children's health perceptions and compare the children's perceptions to what the parent perceived the children's health perceptions would be.

A pilot study was conducted with the use of 137 fourth-, fifth-, and sixth-grade students from three private elementary schools. A preliminary version of the Children's Health Rating Scale was implemented. Twelve items were scored in a positive direction, and 10 items were scored in a negative direction. The overall internal

consistency reliability of the preliminary form was .83. This resulted in five items being deleted from the scale.

The subsequent study consisted of 1,201 students in the fourth, fifth, and sixth grade in nine public and private schools. The final sample size ranged from 1,141 to 1,159 subjects. The Children's Health Rating Scale was given to the subjects, and items were read aloud to the participants.

Several methods were implemented to determine validity of the instrument. Construct validity was evaluated using principal factor method of factor analysis to determine if the instrument measured what it was supposed to measure. Cronbach's alpha coefficient was used on the scale to measure reliability of a single construct. Favorable responses of health perceptions in children were hypothesized to have a favorable relationship to general health ratings. The variables of sex and age were also examined to identify any serious threats to validity.

The results of Maylath's (1990) study concluded most item's midscores were 3.00, and standard deviations were near 1.00. Scale means showed a slight increase as the grade level increased. Descriptive statistics showed a median score of 62.46 and a modal score of 66.00 with a

range of 27 to 85. Pearson's product-moment correlations were performed as well. The hypothesis of favorable health responses was tested and showed a probability level of .001.

Maylath (1990) concluded that the Children's Health Rating Scale was a valid and reliable measure of children's health perceptions. The tool was found to be appropriate for the age level of the subjects. The researcher suggested further research to strengthen the validity of the instrument.

The validity and reliability of the instrument were found to be acceptable for the purpose of the existing study. Both studies implemented the Children's Health Rating Scale with the existing study measuring children's health perceptions. The development of the tool established a measurable, age-appropriate instrument that was easily administered to the participants in the existing study.

The literature reviewed establishes a strong defense for the existing research project. Each study measured children's perceptions of health, although a variety of methods were used. Self-reporting was utilized in Harrell et al.'s (1997) study. Singleton et al. (1992) suggested

the use of open-ended questions. Graham and Uphold (1992) supported the use of a questionnaire for the collection of data. The use of an age appropriate questionnaire limited responses and allowed accurate data collection from this particular group. Hester (1984) developed a measurable tool, which led to the development of the Children's Health Rating Scale which was utilized in the existing study. All of the studies reviewed recommended that further research be conducted relating to health perceptions of children.

Chapter III

The Method

The purpose of this study was to determine children's health perceptions and establish a working definition to establish further health teaching models and implement age appropriate interventions.

Design of the Study

A descriptive, one-group design was employed for the purpose of this study to determine children's health perceptions. A descriptive study is one that seeks only to describe and synthesize data (Polit & Hungler, 1995). This study involved no manipulation of variables and lacked the characteristic of random selection of subjects. Therefore, this study was deemed appropriate for a descriptive design.

Variables

The independent variable was health perceptions, and the dependent variable was school-age children. Extraneous variables that might have affected questionnaire responses

were illness, maturity of the subjects, and environmental variables such as intercom announcements and distractions by the other subjects. Having the principal investigator exclusively administer the questionnaire minimized extraneous variables. All nonparticipating subjects were removed from the group, and the subjects were placed in a quiet, comfortable classroom for administration of the Children's Health Rating Scale.

Limitations

Limitations of the study were identified as (a) nonrandom selection of the sample, (b) small sample size, and (c) limited response choices to the Children's Health Rating Scale.

Setting, Population, and Sample

The setting for this study was a public elementary school in Northeast Mississippi. The public elementary school educates students from kindergarten through the fourth grade. The population of students was representative of all socioeconomic groups, genders, and races of individuals in the surrounding area. Students were not segregated according to learning ability and included those students with physical limitations as well.

Average classroom size for each grade was approximately 20 students. Each classroom employed a teacher and assistant teacher. A convenience sample of 120 students currently enrolled in the fourth grade was selected for the purpose of this study due to the cognitive level of this age group and their ability to read and understand the questionnaire with minimal assistance from the principal investigator. All fourth-grade students who wished to participate and had written permission from their legal guardian were included in the study.

Data Collection Procedure

Prior to the study, permission was obtained from the Mississippi University for Women Committee on the Use of Human Subjects in Experimentation (see Appendix A). In addition, consent was obtained for the use of the Children's Health Rating Scale and its modification for the purpose of this study (see Appendix B). After a brief interview describing the purpose of the study and inclusion criteria, written consent was obtained from the principal of the school and each of the four classroom teachers (see Appendix C).

The legal guardian of each subject was sent a letter of consent with the subject's daily school papers and was

returned by the end of the week by the subjects (see Appendix D). The responsible parties were informed of the purpose of the study and assured that participation or non-participation would in no way affect the subject's grade. Additionally, the responsible parties were assured that participation in the study would not interfere with regular classroom instruction. Each teacher was allowed to designate an appropriate time for administration of the questionnaire.

The subjects were moved to the media center/library to provide a quiet environment with assistance from the teacher. The Children's Health Rating Scale was administered on two separate days during a one-week time period with three classrooms participating per day. The principal was notified of these time frames to attempt to decrease extraneous variables such as intercom announcements and other students entering the media center/library. The Children's Health Rating Scale was distributed to each subject with instructions to leave the questionnaire face down until further instruction. After each subject had received a copy of the Children's Health Rating Scale, they were instructed to turn to the first page. A brief description of the purpose of the study and

questionnaire was then relayed to the subjects by the principal investigator. The principal investigator gave detailed instruction to the subjects regarding the correct method for answering the items using the scaled response system.

No names were used on the questionnaire for confidentiality purposes. After instructions had been given to the subjects related to the method for answering the questions, the children were allowed up to 30 minutes to complete the questions. The average completion time was 15 minutes. Upon completion of the questions, the subject hand-delivered the completed Children's Health Rating Scale to the principal investigator and was given a small token of appreciation. The subject was then instructed to return to their classroom. The questionnaires were placed in an envelope for data interpretation. The same procedure for data collection was repeated for each of the 6 fourth-grade classrooms. The responses to the questions were not discussed with the subjects, teachers, or principal. The results of the study were available to all participants, responsible parties, and school educators upon completion of the data interpretation.

Instrumentation

The Children's Health Rating Scale was used to determine children's health perceptions (see Appendix E). The scale was modified from its original 29-item format to 17 items; items 18-29 dealt with validity and social desirability and were not deemed desirable for this study. Items 2 and 5 had modification to the wording for better understanding by the subjects. The Likert-type scale utilized rank-ordered responses. For each of the 17 questions, there were 5 possible response choices. A response of "True" represented a score of 5; "Mostly true" represented a score of 4; "Don't know" represented a score of 3; "Mostly false" represented a score of 2; "False" represented a score of 1. Items 1, 3, 5, 7, 9, 10, 12, 13, and 17 were inversely scored.

Data Analysis

Data were collected using the Children's Health Rating Scale. The items were then scored with some responses being scored as reversed order responses. Possible responses with scores were: True = 5, Mostly true = 4, Don't know = 3, Mostly false = 2, and False = 1. The possible score range was 17 through 85. Nine items were inversely scored. A score of 61 indicated that the

participant had a positive health perception. If 60% or more of the subjects scored 61 or higher, it was determined that the children had overall positive health perceptions.

In summary, the study utilized descriptive statistics to determine school-age children's health perceptions. The setting and population were an elementary school in Northeast Mississippi with a sample of 70 fourth-grade students. Permission was obtained from the principal of the school as well as the individual classroom teachers and the legal guardians of the participants. The Children's Health Rating Scale was a 17-item questionnaire utilized to measure positive health perceptions of the subjects. The possible range of scores was from 17 to 85. Data analysis was conducted, and a score of 61 indicated a positive health perception. Additionally, at least 60% of the students scored 61 or higher indicating an overall positive health perception by the students.

Chapter IV

The Findings

The purpose of this study was to determine the health perceptions of children. A survey design was implemented for this descriptive study. A questionnaire was utilized to obtain information from fourth-grade students indicative of their perceptions of health. Data from each questionnaire were analyzed using frequency distributions and percentages. The findings from the study are presented in this chapter.

Description of the Sample

The convenience sample consisted of fourth-grade students currently enrolled in a public elementary school in Northeast Mississippi. One hundred and twenty letters were sent to fourth-grade students' parents requesting permission for the students to complete the Children's Health Rating Scale. A total of 70 children responded to the questionnaire. Data obtained from one subject was excluded from the study due to incomplete data. An additional six participants omitted one response from the

questionnaire but were not excluded because the researcher did not find this statistically significant. The final sample consisted of 69 subjects.

The composition of the sample included 32 males (46.38%) and 37 females (53.62%). The mean age of the participants was 10 years with a range from 9 to 12 years. Distribution is presented in Table 1.

Table 1

Age and Gender of Participants by Frequency and Percentage

Age (years)	Boys		Girls	
	f	%	f	%
9	7	10.15	4	5.79
10	19	27.54	28	40.58
11	6	8.70	4	5.79
12	0	0.00	1	1.45

Note. N = 69.

Ethnic diversity was not analyzed for the purpose of this study but was equal to that of the public school

system for this region. Classrooms represent all races and socioeconomic status.

Analysis of the Data

One research hypothesis was generated for this study. Descriptive statistics were generated to support the hypotheses. The research hypothesis was as follows: Children have positive perceptions of health. The distributions of responses for a total health perception level for the subjects are presented in Table 2.

Table 2

Health Perceptions Scores of Fourth-Grade Children by Frequency and Percentage

Scores	f	%
Positive	57	82.61
Negative	12	17.39

Note. N = 69.

As hypothesized, more than 60% of the participants had a score of 61 or higher indicating that the participants of this study had a positive health

perception. Therefore, the directional hypothesis was accepted.

Additional Findings

Overall, 82.61% (N = 69) responded with a score of 61 or higher. A total score of 61 indicated that at least 60% of the questions (n = 17) were answered with a positive response (score of 4 or 5). Out of a possible score of 85, males were found to have an average score of 67.44, and females were found to have an average score of 67.32, for an overall average response of 67.38. Of these scores, 78.13% of males responded with a score of 61 or higher, and 86.49% of females responded with a score of 61 or higher. The findings of the Children's Health Rating scores based on gender are presented in Table 3.

Table 3

Average Scores of the Children's Health Rating Scale Based on Gender

Gender	n	M	SD
Male	32	67.44	9.56
Female	37	67.32	8.31

Note. N = 69.

Certain questions on the instrument were responded to more positively than other items. Item #13, "I expect to have a very healthy life," elicited the greatest number of positive responses with a total of 65 (94.20%) positive responses. Males comprised 30 of the positive responses and females comprised 35 of the positive responses. Additionally, the question with the second largest number of responses was item #9, which stated "My body seems to fight off illness very well." A total of 60 (86.96%) positive responses were elicited for this item. Males comprised 28 of the positive responses while females comprised 32 of the positive responses.

The largest number of negative responses arose from item #15 which stated, "When there is something going around, I usually catch it." Thirty-three (47.83%) negative responses were tallied for this item. Males comprised 13 of the responses, and females comprised 20 of the responses.

The majority of the children answering the questionnaire had a response to each question regarding their health as positive or negative. However, item #4, "I will probably be sick a lot in the future," item #5, "Most children get sick a little easier than I do," and item

#11, "I think my health will be worse in the future than it is now," were found to have the most "Don't know" responses (26, 25, and 25, respectively). Table 4 represents the positive, don't know, and negative responses to individual questions by the participants in this study.

Table 4

Responses of Children's Health Rating Scale by Frequency and Percentage

Statement	Responses					
	Positive		Don't know		Negative	
	f	%	f	%	f	%
1. According to doctors I've seen, my health is now excellent.	48	69.57	21	30.43	0	0.00
2. I seem to get sick a little easier than other children my age.	50	72.46	8	11.59	11	15.94
3. I feel better now than I ever have before.	50	72.46	8	11.59	11	15.94
4. I will probably be sick a lot in the future.	29	42.03	26	37.68	14	20.29
5. Most children get sick a little easier than I do.	34	49.28	25	36.23	10	14.49
6. I am somewhat ill.	57	82.61	4	5.80	8	11.59

(table continues)

Table 4. (Continued)

Statement	Responses					
	Positive		Don't know		Negative	
	f	%	f	%	f	%
7. In the future, I expect to have better health than other people I know.	47	68.12	18	26.09	4	5.80
8. I'm not as healthy now as I used to be.	46	66.67	14	20.29	9	13.04
9. My body seems to fight off illness very well.	60	86.96	5	7.25	4	5.80
10. I'm as healthy as anybody I know.	38	55.07	22	31.88	9	13.04
11. I think my health will be worse in the future than it is now.	39	56.52	25	36.23	5	7.25
12. My health is excellent.	58	84.06	9	13.04	2	2.90
13. I expect to have a very healthy life.	65	94.20	3	4.35	1	1.45
14. I have been feeling bad lately.	55	79.71	0	0.00	14	20.29
15. When there is something going around, I usually catch it.	32	46.38	4	5.80	33	47.83
16. Doctors say that I am now in poor health.	52	75.36	15	21.74	2	2.90
17. I feel about as good now as I ever have.	51	73.91	7	10.14	11	15.94

Summary

The purpose of this study was to ascertain children's health perceptions. Seventy participants completed the Children's Health Rating Scale. Descriptive statistics were used to analyze the data collected from the final sample of 69 subjects. Statistical findings used to test the research hypothesis were presented. Additionally, other pertinent findings based on age and gender were revealed.

Chapter V

The Outcomes

Health care of children has long been approached from an adult perspective. However, applying adult treatment approaches to children is not always the appropriate treatment choice. Healthy People 2010 (U.S. Department of Health and Human Services, 1998) has identified children as the primary targets for disease prevention and health promotion. Children have their own unique abilities to conceptualize and implement positive health practices.

The purpose of this study was to document and describe the health perceptions of children. Bandura's Social Learning Theory served as the theoretical framework for this descriptive study. The research hypothesis for this study was as follows: Children have positive health perceptions.

The convenience sample consisted of 69 fourth-grade students currently enrolled in a Northeast Mississippi public school. The subjects were asked to complete the Children's Health Rating Scale during regular school hours

in the presence of the principal investigator after consent was secured from the subject's legal guardian. Descriptive statistics were generated to describe the factors revealed on the questionnaire.

This chapter includes a discussion of the findings of the study. The implications, conclusions, and recommendations are also presented.

Summary of the Findings

Demographics of the sample. The sample for this study consisted of 69 subjects currently enrolled in the fourth grade. The mean age of the participants was 10 years. Thirty-two participants were male and 37 participants were female. Racial and socioeconomic diversity was representative for the region. The racial and socioeconomic variables were not analyzed for the purpose of this study and may have limited the generalization of the study to a larger population. However, the findings may be representative of similar regional populations.

Research Hypothesis

One research hypothesis guided the study: Children have positive health perceptions. Descriptive statistics revealed that 82.61% of the children had a positive health

perception. A similar study (Hester, 1987a) found that 91% of the children felt good about their health. Children did not view health as the opposite of illness; therefore, their ability for abstract thinking is much more sophisticated than once thought (Hester, 1987b). Bandura (Thomas, 1985) provided one explanation for this ability for abstract thinking whereby children learn behaviors through modeling. This modeling does not require a cognitive explanation for "why."

The findings from the current study supported those of Hester (1987b) and lent credence to the Bandura Social Learning Theory. Children are generally optimistic about their health at this age since this generation of children usually has not had extensive experiences with illness and has had few negative situations from which to draw an opinion. Due to the public school system requiring immunizations prior to entry, many catastrophic childhood illnesses have been largely eliminated. This group of children has enjoyed a level of health not experienced by previous generations.

Another reason for this group of children's positive health responses might have been due to the inclusion of health in the content of the educational system. The

curriculum at the elementary school included physical education and science courses that placed a great deal of focus on physical health and how the body systems function. The impact of poor physical fitness on each body system was also emphasized.

Another possible explanation for the children's optimism might be the influence of the media regarding positive health practices. Children today are inundated with information from radio, television, and the Internet. Advertisement campaigns have capitalized on the younger market with messages regarding smoking, drug abuse, and weight control. Mentors from the media include sports heroes whom children look up to as role models. Children may be more conscious of their health choices due to the influence of these media heroes.

Little difference was found in health perceptions between males and females. Health perception as a whole was viewed positively by the participants in this study. The cumulative mean score was 67.38. A positive perception of health was determined by the researcher to be a score of 61 or above. Males and females scored comparatively. Males had a mean score of 67.44, and females had a mean score of 67.32. Overall, 69.14% of the questions were

scored positively. Female participants scored 67.57% of the items positively compared with 70.96% of the items being scored positively by males. The close proximity of mean scores may have been due to the age of the participants. During this prepubescent age little differentiation is made between the sexes. Hormonal and emotional changes associated with puberty have not influenced this age group.

One difference, however, was noted in the responses of the males and females. Of the males, 78.13% scored above 61 compared to 86.49% of the females. A possible explanation might be the ages of the males and females of this sample. Twenty-eight of the female participants were 10 years of age while 19 male participants were age 10. This difference in the percentage of female participants responding positively on the questionnaire may be due to the maturity level of females compared to males. Females mature at a younger age than males and may become aware of their bodies and issues of health related to their bodies at an earlier age.

A second explanation for this difference in positive responses might be that females tend to model their mother's behavior as the individual in the family

structure responsible for the family's health. Bandura (1986) supports this theory of modeling for the development of gender roles. Through the modeling of the mother, the female participants may become aware of their own health at a much earlier age than males.

The researcher noted that several items on the instrument elicited a larger number of positive responses. Item #13, "I expect to have a very healthy life," drew the most positive responses with a total of 30 (93.75%). This item was also scored the most positively by female participants with 35 (94.59%) positive responses. The large number of positive responses to this item was most likely due to the optimism exhibited by this age group. Developmentally, it might have been difficult for this age group to draw conclusions about the future. They possess the ability to think abstractly about the future but not necessarily to see it differently than it is now. Therefore, if their health perceptions are positive now, then they will logically view them as healthy in the future.

Additionally, item #9, "My body seems to fight off illness well" drew the second largest number of positive responses with a total of 60 (86.96%). Females contributed

to 32 (86.49%) of the positive responses, and males contributed to 28 (87.5%) of the positive responses. The majority of children within this age group have not had experiences with chronic illness. Immunizations have contributed greatly to the decrease in catastrophic and chronic childhood illnesses. These children may perceive their ability to fight off illness without difficulty because they have never had any major diseases.

Negative responses were found to be the highest for item #15, "When there is something going around, I usually catch it." Thirty-three participants (47.83%) scored this item negatively. Males had 20 (40.63%) negative responses and females had 20 (54.05%) negative responses to this item. This item may represent Bandura's (1986) theory of modeling. These children may have heard this remark from adults numerous times throughout childhood and may have perceived their short-term illnesses as a result of coming in contact with another individual. It also may have been representative of the generalization and abstract thinking children are capable of employing.

Another explanation for the high number of negative responses to this item may have been the time of year that the questionnaire was administered. The students completed

the questionnaire in late spring. A large number of minor illnesses are associated with the winter months. The children in this study may have made the association retrospectively for the previous several months.

Item #4 drew the greatest number of "Don't know" responses from males. This item, "I will probably be sick a lot in the future," had 11 (34.38%) "Don't know" responses from males. Comparatively, there were 15 (40.54%) "Don't know" responses by females. Females also had high "Don't know" responses to items #5, "Most children get sick a little easier than I do," and item #11, "I think my health will be worse in the future than it is now." Both of these items had 16 (34.38%) "Don't know" responses by females. Adults familiar with this type of testing recognize this response as being ambiguous. However, children within this age group are concrete thinkers and live in the "now." The response of "Don't know" is not ambiguous at all; it is a very definitive answer possibly meaning the child does not have any way of knowing the future or if other children are sicker than the participant answering the question. In the case of this age group, a neutral response is statistically

significant and should be considered when addressing health perceptions of children.

According to Bandura's Social Learning Theory, the role of modeling to learn new behaviors begins in early childhood and influences not only behaviors but also beliefs and perceptions. Bandura's theory provides a theoretical framework within which future research may be guided when addressing healthcare issues of children.

Conclusions

The following conclusions were derived from the findings of this study:

1. Children have the ability to conceptualize their health as positive or negative.
2. Children have significantly positive health perceptions.
3. Fourth-grade children have difficulty answering futuristic questions and tend to respond with "Don't know."

Limitations

The design of the study did not allow for generalization of the findings. The study was conducted among children who attended one elementary school within

the region. The public school system strives to provide equal distribution of race and socioeconomic status of the students, but this particular variable was not addressed in this study.

The researcher did not provide assistance with interpretation of the questionnaire; however, children of the age group represented are prone to give responses that they perceive will please the adult. This may have inadvertently stimulated biased responses.

The accuracy of self-reporting was dependent on the individual participant's willingness to answer each question with honesty at the particular moment the questionnaire was administered. Timing was also an issue as the questionnaire was given toward the end of the school year when the attention span of the participants may have been altered due to extraneous activities beyond the researcher's control.

Implications

Several implications for nursing were derived from this study. Implications in the areas of nursing theory, research, education, and practice were suggested.

Theory. Bandura's Social Learning Theory was validated by this study. The results of this study

encourage future research using Bandura's Social Learning Theory as a framework when assessing children's perceptions of health and their possible influence on learned positive health practices.

Research. Children's health perceptions are not well documented. While research regarding the value of exercise and food choices are well documented, few studies have been conducted to examine children's ability to cognitively make health practice choices based on their perceptions of health. The findings of this study suggest that more research is needed to gain a greater insight into children's health perceptions in order to provide appropriate educational programs and to allow healthcare providers to treat children in an age-appropriate manner. The need to develop valid and reliable assessment tools emerged from this study.

Education. As the cost of healthcare continues to rise and knowledge about the impact of lifelong health choices continues to increase, it is essential for healthcare providers to understand children's health perceptions. Through an understanding of these perceptions, health care providers will be able to impact the future health of this age group. Retrospective studies

are extensive regarding the impact of diet, exercise, and social practices on future health. In order for health care providers to help establish positive health patterns for children educational programs appropriate for children utilizing an understanding of perceptions of health must be established. This can be accomplished through continuing health programs that are validated by research.

Practice. Nurses must acknowledge the idea that children have their own unique understanding of health in order to approach their healthcare in an appropriate fashion. Nursing intervention generally focuses on treating the ill child. New goals must be set for the prevention of illness through positive health practices. The outcome of setting such goals will reduce the cost and burden of healthcare for this age group into adulthood.

The findings of this study suggest that children have the ability to abstractly reason the impact of behaviors today and the consequences of those behaviors tomorrow. Children who have a positive perception of health should be encouraged through education and intervention to maintain healthy lifestyle choices that may help prevent illness into adulthood. Further research should be

conducted with children of all ages in order to further understand children's health perceptions.

Recommendations for Further Study

Based on the findings of this study, the following recommendations were made:

1. Replication using a larger sample which is more racially diverse to represent the general population.
2. Comparison of research instruments for use with children of all ages regarding health perceptions.
3. Conduction of research specific to the development of interventions to educate children regarding positive health choices.
4. Conduction of further research that would correlate demographic characteristics with health perceptions.

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APPENDIX A

APPROVAL OF COMMITTEE ON USE OF
HUMAN SUBJECTS IN EXPERIMENTATION
MISSISSIPPI UNIVERSITY FOR WOMEN



MISSISSIPPI
UNIVERSITY
FOR WOMEN

Admitting Men Since 1982

Office of the Vice President for Academic Affairs
Eudora Welty Hall
W-Box 1603
Columbus, MS 39701
(601) 329-7142

March 1, 1999

Ms. Amy Forrest
c/o Graduate Program in Nursing
Campus

Dear Ms. Forrest:

I am pleased to inform you that the members of the Committee on Human Subjects in Experimentation have approved your proposed research on the condition that the consent of the teacher is amended to reflect that there will be minimal disruptions of the classroom. A consent form also must be obtained from the principal or headmaster and the abstract and consent forms must be checked for consistency. As always, the results should be under lock and key and any codes destroyed after the research is complete.

I wish you much success in your research.

Sincerely,

Susan Kupisch, Ph.D.
Vice President
for Academic Affairs

SK:wr

cc: Mr. Jim Davidson
Dr. Mary Pat Curtis
Dr. Lynn Chilton

APPENDIX B

CONSENT TO USE THE CHILDREN'S
HEALTH RATING SCALE

PURDUE UNIVERSITY**STUDENT HEALTH CENTER**

November 25, 1998

Amy Forrest, RN
706 Ashley Lane
Tupelo, MS 38801

Dear Amy:

Enclosed you will find a copy of the Children's Health Ratings Scale. You are welcome to use it or its adaptation in your study of school children, with appropriate credit to the author. Please note that items 18-29 consist of validity and social desirability items which are not a part of the CHRS.

Best wishes for your research.

Sincerely yours,

A handwritten signature in cursive script that reads "Nancy Maylath".

Nancy S. Maylath, H.S.D.
Director
Health Promotion Programs

Enclosure

APPENDIX C
CONSENT FROM PRINCIPAL

April 16, 1998

Dear XXXX,

As a graduate student at Mississippi University for Women, School of Nursing in Columbus, Mississippi, I am conducting a study in partial fulfillment of the Master of Science in Nursing degree. The study I plan to undertake is entitled Children's Health Perceptions.

The purpose of this study will be to determine school-age children's perceptions of health. I am requesting your assistance in my proposed research study.

Participation by the subjects will be on a voluntary basis, and subjects and their parents will be informed of the details of the study and of their rights as subjects. Subjects will be assured that neither their agreement nor their refusal to participate in the study will affect their grade or reflect on their progress report. An appropriate time will be agreed upon by the teacher for the administration of the questionnaire as to not interfere with regular classroom instruction.

I am enclosing a duplicate of this letter, a copy of the consent form, and a copy of the Children's Health Rating Scale for your records. Please return the signed original letter to me in the enclosed envelope. Thank you for your consideration and attention to this request.

Sincerely,

Amy Forrest, RNC, BSN

Permission Granted:_____

Signature:_____

Permission Denied:_____

Date:_____

APPENDIX D
INFORMED CONSENT

Informed Consent

As a student of Mississippi University for Women, I am required to complete a study as partial fulfillment of my Master of Science in Nursing degree. I am conducting a study titled Children's Health Perceptions. The purpose of the study is to examine how fourth-grade students view their health. This will aid health care professionals in delivering age appropriate education to our children by better understanding their health concerns.

The study will consist of a questionnaire that has 17 questions with five possible answers. The questionnaire will be administered as a class during the students' free time and will not interfere with class time or the teacher's regular lesson plan. Whether or not your child participates will not affect his or her grade in any way, and all information obtained will be kept confidential. After completion of the questionnaire, each child will receive a small thank you token.

I appreciate your consideration to allow your child's participation and thank you for your assisting me in meeting my course requirements.

If you have any further questions or concerns please contact me at:

Amy Forrest, RNC, BSN
Telephone: (662) 680-9767

I give my permission to Amy Forrest RNC, BSN, to allow my child _____ to participate in the study Children's Health Perceptions. I understand all information received will be confidential.

Yes _____ No _____

Signature: _____

Date: _____

Relationship: _____

APPENDIX E

CHILDREN'S HEALTH RATING SCALE

Children's Health Rating Scale

Most of the questions in this booklet ask how you feel about your health. This is NOT a health test. There are no right or wrong answers. It is important to answer how you really feel.

Instructions: (Do not mark answers in this booklet.)

There are three important things to remember when marking your answers on the answer sheet:

1. **Mark a heavy mark.** The mark should be large enough to fill the circle, but it should not go outside. It is important to make very black marks.
2. **Keep your place on the answer sheet.** Make certain that each time your mark is placed in a circle, the row is the same as the sentence.
3. **Make only ONE mark in a row.** If you change your mind about an answer, erase your first mark completely.

EXAMPLE:	True	Mostly True	Don't Know	Mostly False	False
A. I like ice cream	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

	True	Mostly True	Don't Know	Mostly False	False
1. According to doctors I've seen, my health is now excellent.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2. I seem to get sick a little easier than other children my age.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3. I feel better now than I ever have before.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4. I will probably be sick a lot in the future.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5. Most children get sick a little easier than I do.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
6. I am somewhat ill.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
7. In the future, I expect to have better health than other people I know.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
8. I'm not as healthy now as I used to be.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

	True	Mostly True	Don't Know	Mostly False	False
9. My body seems to fight off illness very well.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
10. I'm as healthy as anybody I know.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
11. I think my health will be worse in the future than it is now.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
12. My health is excellent.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
13. I expect to have a very healthy life.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
14. I have been feeling bad lately.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
15. When there is something going around, I usually catch it..	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
16. Doctors say that I am now in poor health.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
17. I feel about as good now as I ever have.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

STOP